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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	19-04-19
Type of Mix	:	Tack coat DBM
Sample I/D	:	2

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.790	0.800
Final weight of plate after application of tack Coat (c)	Kg	0.813	0.823
Weight of tack coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

Consultant's Representative

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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	20-04-19
Type of Mix	:	Tack coat
Sample I/D	:	3

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.777	0.744
Final weight of plate after application of tack Coat (c)	Kg	0.800	0.767
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

TEJUS CONSULTANTS

Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	20-04-2019
Type of Mix	:	BC
Sample I/D	:	BC3

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	935	915
2. Weight of Mixture after extraction, g	883	863
3. Weight of Bitumen	52	52
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	54.10	53.85
8. Bitumen content in %	5.79	5.89
9. Average Bitumen content in %	**5.84**	
10. Minimum Bitumen content in %	**5.80**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	20-04-2019
		Date of testing:	20-04-2019
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	883.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	86	86.0	9.74	90.26	79 - 100
9.50	120	206.0	23.33	76.67	71 - 95
4.75	86	292.0	33.07	66.93	53 - 71
2.360	140	432.0	48.92	51.08	42 - 58
1.180	120	552.0	62.51	37.49	34 - 48
0.600	75	627.0	71.01	28.99	26 - 38
0.300	66	693.0	78.48	21.52	18 - 28
0.150	42	735.0	83.24	16.76	12 - 20
0.075	69	804.0	91.05	8.95	4 - 10
Pan	79.0	883.0			
Total	883.0				

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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	20-04-2019
Type of Mix	:	Tack coat
Sample I/D	:	3

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.090	0.090
Initial Wt of empty Plate (b)	Kg	0.750	0.753
Final weight of plate after application of tack Coat (c)	Kg	0.773	0.776
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	**0.250 to 0.30 Kg/sq.m**	

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Test Report on Compressive Strength of Concrete Cubes

Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	HONNAPPA MURTHY
Location:	Cement
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	02-04-2019	30-04-2019	28 days	8.582	22500	451	20.04	20.06
2	02-04-2019	30-04-2019	28 days	8.762	22500	450	20.00	
3	02-04-2019	30-04-2019	28 days	8.560	22500	453	20.13	

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TEST REPORT	
Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to roads and drains at UAS Layout in Ward No.07
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

SPECIFIC GRAVITY AND WATER ABSORPTION
FINE AGGREGATE (IS-2386-PART-3)

Type of Material	**Sand/M sand**	**Proposed Use**	P.C.C
Location/Source	**At Plant/site**	**Date of Sampling**	24-05-2019
Period of Soaking	**24 hours**	**Date of Testing**	24-05-2019

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	680	680	695	
B	Weight of oven - dry sample gm.	671	672	688	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1698	1698	1708	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.611	2.615	2.626	**2.617**
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.341	1.190	1.017	**1.183**

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Test Report on Cement	
Project	Improvements to roads and drains at UAS Layout in Ward No.07
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	HONNAPPA MURTHY
Sample ID	Cement
Date of Sample Tested	24-05-2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	36 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	380	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	

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TEST REPORT	
Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads and drains at UAS Layout in Ward No.07
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

SIEVE ANALYSIS

Total Weight:	**3000** gms				
Type of Material	**Fine aggregate (River Sand/M sand)**		**Proposed Use**	P.C.C	
Sample Location	At Plant/site		**Date of Sampling**	24-05-2019	
			Date of Testing	24-05-2019	
IS Sieve Size	**Weight Retained**	**Cum. Weight Retained**	**Cum. % Retained**	**Cum. % Passing**	**Spec. Limit (%) Passing (Zone-II)**
0.00 mm	0	0	0	100.00	**100**
.75 mm	241	241	8.03	91.97	**90 - 100**
.36 mm	283	524	17.47	82.53	**75 - 100**
.18 mm	522	1046	34.87	65.13	**55 - 90**
.600 mm	481	1527	50.90	49.10	**35 -59**
.300 mm	622	2149	71.63	28.37	**8-30**
.150 mm	610	2759	91.97	8.03	**0 - 10**
Pan	241	3000			**-**

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT	
Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads and drains at UAS Layout in Ward No.07
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY
Total Weight in gr	3000

SIEVE ANALYSIS

Type of Material	40 mm down size			**Proposed Use**	P.C.C
Sample Location	At Site			**Date of Sampling**	24-05-2019
				Date of Testing	24-05-2019
IS Sieve Size	**Weight Retained in gm**	**Cum. Weight Retained in gm**	**Cumulative Weight Retained in %**	**Cumulative Weight Passing in %**	**Specific Limits as per IS 383-1970 (RA-2007)** % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	98	98	3.27	96.73	95-100
20.00mm	1468	1566	52.20	47.80	30-70
10.00mm	632	2198	73.27	26.73	10-35
4.75mm	720	2918	97.27	2.73	0-5
Pan	82	3000	100.00	0.00	

Remarks : ✓ Satisfactory / Not Satisfactory

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PRECAST SLAB (CORE) TEST REPORT

ent	:	Bruhat Bangalore Mahanagara Palike
ntractor	:	HONNAPPA MURTHY
me of Work	:	Improvements to roads and drains at UAS Layout in Ward No.07
.of Sample Tested	:	3
te of Testing	:	02-06-19
chinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
ade of Concrete	:	M_{20} - 100mm thick

No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	90.00	0.462	2614.39	1.80	0.960	38.32	19.52	21.08	20.23	25.29
2	50.00	90.00	0.459	2597.41	1.80	0.960	38.57	19.64	21.22	20.37	25.46
3	50.00	90.00	0.450	2546.48	1.80	0.960	38.16	19.43	20.99	20.15	25.19

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Any Query regarding the report must be reported reported within 15days from the date of testing.

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KERB STONE (CORE) TEST REPORT

of Work	:	Improvements to roads and drains at UAS Layout in Ward No.07
	:	Bruhat Bengaluru Mahanagara Palike
actor	:	HONNAPPA MURTHY
ltant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Sample Tested	:	1
of Testing	:	05-06-2019
nical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
e of Concrete	:	M_{15}

o.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength
	50.00	85.00	0.386	2312.80	1.70	0.960	28.72	14.63	15.80	15.17	18.96
2	50.00	85.00	0.382	2288.84	1.70	0.960	28.66	14.60	15.76	15.13	18.92
3	50.00	85.00	0.386	2312.80	1.70	0.960	28.62	14.58	15.74	15.11	18.89

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KERB STONE (CORE) TEST REPORT

f Work	:	Improvements to roads and drains at UAS Layout in Ward No.07
	:	Bruhat Bengaluru Mahanagara Palike
tor	:	HONNAPPA MURTHY
ant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
mple Tested	:	2
Testing	:	05-06-2019
al Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
f Concrete	:	M_{15}

Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
50.00	85.00	0.385	2306.81	1.70	0.960	28.46	14.49	15.65	15.03	18.78
50.00	85.00	0.378	2264.87	1.70	0.960	28.62	14.58	15.74	15.11	18.89
50.00	85.00	0.374	2240.90	1.70	0.960	28.48	14.50	15.67	15.04	18.80

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